

IMPORTANCE OF TESTING YOUR VOTING SYSTEMS

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In the News



- New York City, 2010. (Baron, 2010)
 - ▣ Polls opened late due to machines not arriving on time.
 - ▣ Some polling places indicated that they did not have keys to turn on machines.
 - ▣ Mayor Michael Bloomberg was quoted as saying “A royal screw-up” and “completely unacceptable.”
- Rapid City Journal, 2009 (Rusch, 2009)
 - ▣ About 5,000 votes were added to the total, when information was combined from three ballot scanners.



- According to Election Awareness.com, a group created by the Electronic Frontier Foundation (eff.org), there were 311 user submitted reports of voting equipment problems in the 2010 General Election. (Election Awareness, 2012)
- Some of those reports were subjective, or incorrectly tagged as voting equipment problems by the ticket creator.



- Philadelphia, PA Report #13933
 - ▣ Voter reports that someone voted twice at the polling place. Voter reported it to the election officials at the polling place.

- Georgia, Report #14413
 - ▣ Voted this morning. Declined to give further information. Not sure if he was able to vote.



- There were also tickets created that appeared to be legitimate voting machine problems.



□ Richmond California ticket #16447

ES&S AutoMark jammed and had other failures. Poll workers and rovers untrained to deal with it. Stub from previous voter stuck in machine. Rover called but did not arrive for over two hours, during which time voter was waiting. Rover unable to fix problem, had to wait for technician. When jam cleared, machine would not calibrate properly. After that was fixed, could see that machine had only marked one side of two-sided ballot. Error message on supposedly accessible machine for blind was given on screen only and not through headphones. After voter had waited for just under four hours, finally marked his ballot by hand because he could not wait any longer. Pollworkers voiced concern about subsequent voters but took no action to check machine, and rover said nothing he could do until there was another failure.

Voter also notes, though says this is a minor complaint, that the computerized voice of the AutoMark was annoying compared to other computerized voices he has heard.



- Charlotte, NC. Report #13588
 - ▣ Voter said voting machine said her ballot was not complete. A poll worker checked and said her ballot seemed complete. She was unsure why the machine said her ballot was incomplete.



- Montana has also made the news.
 - ▣ The *Missoulian* reported that during the 2012 primary, that Montana counties were ‘plagued by vote-counting machine troubles’ (Szpaller, 2012)
 - ▣ The article focused on the M650
 - One example appeared to be voter error, putting an ‘X’ instead of entirely filling out the oval, or lightly filling out the oval.
 - The second example the machine had to be adjusted slightly to read folded ballots.
 - The third example appeared to have an issue with the printing of the ballot.



- A result of headlines such as the one seen in Montana, is that it created a “demand” for auditing all the ballots, and a “demand” for all ballots to be counted on a M100.
- The headlines may exaggerate the issue, but, we can all agree that we don’t want these kinds of headlines in the general election.



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Voting Machine Problems



- Unpreventable situations
 - ▣ Power loss
 - ▣ Natural Disasters
 - Snowstorms
 - Wildfires
 - Floods
- In these cases, please have in place a contingency or emergency plan.



□ Preventable problems

- Ballots not being read correctly.
- Zip disks, memory cards, printer paper
- Totals not being zeroed out.
- Missing equipment.
- Calibration on AutoMARKS.
- Technology isn't always intuitive.
- Poor ballot print quality
- Compromised systems.
 - This would be covered more in a security training
- Casting doubt.



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Why do we test our equipment?



- We are required by Statute (13-17-212, MCA)
- To ensure the machines are working.
 - ▣ Ballots are counted correctly
 - ▣ Election media is correct
 - ▣ Power cables/keys work
 - ▣ ERM is getting correct information
 - ▣ Ink is sufficient
 - ▣ There are no ballot printing quality problems



- ❑ If you do encounter a problem, repairs/fixes can (usually) be done before the election.
- ❑ To avoid any unpleasant or embarrassing surprises on election day.
- ❑ Montanans are counting on us to run a fair, accurate, and trouble free election.
- ❑ It makes our jobs easier.



When do we test?

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□ Acceptance Testing

- ▣ Used when a device leaves your control.

 - Repairs

 - Loaned out to groups or organizations for demonstration purposes



□ County Pre-Election Test

- ▣ This test should be performed as soon as ballots and media are received.
- ▣ Test every device, including backup and election management software



□ Public Certification Test

- The election administrator shall publicly test and certify that the system is performing properly.
- Must be done no more than 30 days before an election.



□ Election Day Test

- Must take place on at least 5% of machines that will be used, and on at least one Voter Assist Terminal.



□ With all four of these tests please be sure to

Ensure the following

- Physical Analysis
- Diagnostic Analysis
- Functional Analysis
- Security and Storage



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Best Practices

Tips and advice to ensure preventable problems are avoided.



- ❑ Create your own test deck from ballots, do not use the one supplied by ES&S.
- ❑ Mark your ballots with the words “TEST”.
- ❑ Fold some of your ballots to imitate absentee ballots.
- ❑ Ensure that every oval in every race is checked (Including write-ins, no preference, etc).
- ❑ Use different totals for different candidates/races.



- Test every machine you are going to use in the election.
- Test your backup media.
- Ensure that your ERM machine is **NOT** networked.
- Spend enough time with your election judges to ensure they have a firm grasp on the equipment.
 - ▣ Run through possible problems and fixes
 - ▣ Ensure they know the escalation chain
 - ▣ Provide them with a copy of the Uniform Ballot and Voting Systems Procedures binder



- ❑ If you have a staff member who is more tech savvy, have them help set up at the polling place on election day.
- ❑ Instruct judges to test each AutoMARK, on election morning, to ensure that the machine is marking the ballot correctly and that the calibration is on.
- ❑ Use the Uniform Ballot and voting System Procedures.
- ❑ Maintain a spreadsheet or record of tests done, include date, serial and results.



- ES&S Recommends the following pens for the M100 and 650:
 - ▣ Blue and black ink pens
 - ▣ **Do not** use pencil
 - Marks can be erased
 - Can leave a residue on the tabulators causing issues later in the tabulation process.
 - ▣ **Do not** use pens that can potentially bleed through the other side of the ballot (felt tip pens, markers, etc).
- For counties using the M150
 - ▣ pencils/pens are required to have lead/graphite
 - Unless outfitted with a new sensor.



- Think of other scenarios that you have encountered and how you might test your machines.
- Have a backup plan ready.



Sources

Barron, James, and David W. Chen. "Problems Reported With New Voting Machines." *City Room*. New York Times, 14 Sept. 2010. Web. 31 July 2012. <<http://cityroom.blogs.nytimes.com/2010/09/14/problems-reported-with-new-voting-machines/>>.

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